

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Drouet et al.
Serial No.: 10/747,607
Filed: December 29, 2003
For: Method and System for Obtaining Data Through an IP Transmission Network by Using an Optimized Domain Name Server
Dkt. No.: FR920030014US1
Conf. No.: 6493
Examiner: Nguyen, V.
Art Unit: 2456

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Commissioner for Patents
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BRIEF OF APPELLANTS

This is an appeal from the Final Rejection dated October 22, 2008, rejecting claims 1, 2 and 4. The fee set forth in 37 C.F.R. 1.17 (c) for this Appeal Brief was paid together with the earlier filing of an Appeal Brief on July 14, 2008. The Appeal Brief filed on July 14, 2008 resulted in the reopening of prosecution based on new grounds of rejection.

REAL PARTY IN INTEREST

International Business Machines Corporation is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

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STATUS OF CLAIMS

As filed, this case included claims 1-4. Claim 3 has been cancelled. Claims 1, 2 and 4 remain pending, stand rejected, and form the basis of this appeal.

STATUS OF AMENDMENTS

A response has not been filed in response to the Final Action dated October 22, 2008.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention provides a data transmission system (FIG. 1) as set forth in independent claim 1, comprising at least a data transmission network (internet 12, FIG. 1; page 4, lines 24-25) based upon an IP protocol, at least a content server (content server 14, FIG. 1; page 4, lines 24-32) for providing data requested by a user (user 10, FIG. 1) connected to the network, a plurality of proxies (proxies 16, 18, FIG. 1; page 4, lines 25-27) having a cache function, each proxy capable of having stored the requested data, one of the proxies comprising a user proxy which receives any request for data from the user (page 5, lines 1-6; page 5, lines 19-22), and a domain name server (domain name server 20, FIG. 1; page 4, lines 13-20) for converting a server name (page 5, lines 25-27) provided by the user to the user proxy into an IP address of the content server. The domain name server includes a table (FIG. 2; page 5, lines 21-16) for providing an IP address of a proxy amongst the plurality of proxies capable of having stored the requested data, the table providing the proxy IP address to the user proxy (step 38, FIG. 3, page 6, lines 29-31), which provides the request (page 6, lines 31-33) for data to the proxy storing the requested data without requesting the data from the content server.

The present invention further provides a method as set forth in independent claim 2 for obtaining data in an optimized way in a data transmission system (FIG. 1) comprising at least a data transmission network (internet 12, FIG. 1; page 4, lines 24-25) based upon an IP protocol, at least a content server (content server 14, FIG. 1; page 4, lines 24-32) for providing data requested by a user (user 10, FIG. 1) connected to the network, a plurality of proxies (proxies 16, 18, FIG. 1; page 4, lines 25-27) having a cache function, each proxy capable of having stored the requested data, one of the proxies comprising a user proxy (page 5, lines 1-6; page 5, lines 19-22) which receives any request for data from the user, and a domain name server (domain name server 20, FIG. 1; page 4, lines 13-20) for converting a server name provided by the user to the user proxy into an IP address of the content server. The method includes the steps of: a) determining if a table (FIG. 2; page 5, lines 21-16; step 32, FIG. 3; page 6, lines 22-24) stored in the domain name server contains an entry corresponding to the server name provided by the user to the user proxy; b) determining, when there is such an entry in the table, whether the entry includes an address of a proxy amongst the plurality of proxies (step 34, FIG. 3; page 6, lines 24-26); c) returning the proxy IP address to the user proxy if such a proxy IP address is included in the entry corresponding to the server name (step 38, FIG. 3; page 6, lines 29-31); and d) sending the user request from the user proxy to the proxy IP address included in the entry (page 6, lines 31-33).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- (1) Whether claims 1, 2, and 4 are unpatentable under 35 U.S.C. §103(a) over Calo et al. (U.S. Patent No. 7,127,492), hereafter "Calo."

ARGUMENT

- (1) Rejection of claims 1, 2, and 4 under 35 U.S.C. §103(a) over Calo.

To establish a prima facie case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143.

The rejection of claims 1, 2, and 4 under 35 U.S.C. 103(a) over Calo is defective because Calo fails to teach or suggest each and every feature of the claims.

In accordance with independent claim 1, the user proxy "receives **any** request for data from the user" (emphasis added). Contrastingly, Calo selectively directs client service requests from a user to any one of a plurality of different proxy servers using a load balancing module. See, e.g., Calo, column 3, lines 3-19. Calo uses the load balancing module to selectively direct a client service request to the appropriate proxy

server “based upon current network performance characteristics.” Clearly, client service requests in Calo can be directed to different proxy servers at different times, rather than to the same proxy server as set forth in independent claim 1.

In independent claim 1, a domain name server includes a “table for providing an IP address of a proxy amongst the plurality of proxies capable of having stored the requested data”, wherein the table provides “the proxy IP address to the user proxy, which provides the request for data to the proxy storing the requested data without requesting the data from the content server.”

In the above-referenced Final Office Action, the Examiner alleges with regard to this feature that “obviously, the DNS includes a table for name resolution”, and that “it is obvious the information essential to satisfy this request, i.e., the proxy IP address, is provided to the user proxy” by the domain name server. Appellants submit that the Examiner has not provided any evidence to support this allegation, and that the Examiner is basing these assertions solely on the teachings presented in Appellants’ patent application. That is, the Examiner is using impermissible hindsight in the rejection of independent claim 1.

Calo fails to disclose not only the claimed “table”, but also the provision by the proxy servers 105, 106 (FIG. 1) of a “request for data to the proxy storing the requested data”, based on a “proxy IP address” provided to the user proxy by the table of the domain name server. Neither of the proxy servers 105, 106 (FIG. 1) disclosed by Calo provides a “request for data” to another “proxy storing the requested data” as claimed. That is, Calo does not disclose that a “request for data” is provided by one proxy server

to another proxy server.

Appellants submit that independent claim 2 is allowable for reasons similar to those set forth above with regard to independent claim 1. In addition, with regard to step d of independent claim 2, namely "sending the user request from the user proxy to the proxy IP address included in the entry", Appellants submit that Calo's "redirection module" does not provide this functionality, as asserted by the Examiner. Calo is silent with regard to the provision of a request for data **by one proxy server to another proxy server** based on a proxy IP address provided to the user proxy by the table of the domain name server.

CONCLUSION

Accordingly, Appellants submit that claims 1, 2 and 4 are allowable because Calo fails to teach or suggest each and every feature of the claims as required by 35 U.S.C. 103(a).

Respectfully submitted,

/ John A. Merecki /

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CLAIMS APPENDIX

1. A data transmission system comprising at least a data transmission network based upon an IP protocol, at least a content server for providing data requested by a user connected to the network, a plurality of proxies having a cache function, each proxy capable of having stored the requested data, one of the proxies comprising a user proxy which receives any request for data from the user, and a domain name server for converting a server name provided by the user to the user proxy into an IP address of the content server;

wherein the domain name server includes a table for providing an IP address of a proxy amongst the plurality of proxies capable of having stored the requested data, the table providing the proxy IP address to the user proxy, which provides the request for data to the proxy storing the requested data without requesting the data from the content server.

2. A method for obtaining data in an optimized way in a data transmission system comprising at least a data transmission network based upon an IP protocol, at least a content server for providing data requested by a user connected to the network, a plurality of proxies having a cache function, each proxy capable of having stored the requested data, one of the proxies comprising a user proxy which receives any request for data from the user, and a domain name server for converting a server name provided by the user to the user proxy into an IP address of the content server;

the method comprising:

a) determining if a table stored in the domain name server contains an entry corresponding to the server name provided by the user to the user proxy,

b) determining, when there is such an entry in the table, whether the entry includes an address of a proxy amongst the plurality of proxies,

c) returning the proxy IP address to the user proxy if such a proxy IP address is included in the entry corresponding to the server name, and

d) sending the user request from the user proxy to the proxy IP address included in the entry.

4. Method according to claim 2, further comprising:
 - determining whether the user proxy is a known proxy, the user proxy being a known proxy when it is contained in a list of proxies provided to the domain name server at an initialization of the system.

EVIDENCE APPENDIX

No evidence has been submitted.

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RELATED PROCEEDINGS APPENDIX

There are no related proceedings.